



DATE : November 21, 1979  
TO : Pete Henault  
FROM : Mary Savelle *ms.*  
SUBJECT : EPA Meeting on PCBs

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On October 18, 1979 I attended an all-day meeting on PCBs held by the Seattle Office of the EPA. More than 100 representatives of public and private utilities located in Region 10 attended this seminar.

Jim Everts of the local EPA office opened the meeting by explaining that the EPA had had numerous requests for explanation of the EPA regulations governing the handling, transportation, and disposal of PCBs. This seminar was organized in response to a request from the Benton County Public Utility District. Mr. Everts emphasized that everyone was welcome to ask questions at any time during the meeting.

The first speaker was Hal Snyder of the Washington, D.C. Office of EPA. He described the background history of the development of PCB regulation by the federal government. He explained that PCBs have several properties that make them commercially attractive, including: a high degree of chemical stability, low solubility in water, low vapor pressure, low flammability, high heat capacity, and low electrical conductivity. The primary use of PCBs has been in "closed" or "semi-closed" systems in electrical transformers, capacitors, heat transfer systems, and hydraulic systems. PCBs also have been used in paints, adhesives, caulking compounds, plasticizers, inks, lubricants, carbonless copy paper, sealants, coatings, and dust control agents.

Unfortunately, some of the same characteristics that make PCBs so useful in industry, such as great chemical stability, increase the hazards when these toxic chemical compounds are released into the environment because they do not biodegrade. They accumulate in organisms throughout the environment; this is particularly dangerous in the food chain. Human exposure to PCBs can occur through occupational exposure, eating contaminated food, exposure to contaminated soil or water, and transmission from mother to child by breast feeding. Health problems known to be caused by exposure to PCBs include: skin lesions, gastric disorders, reproductive failures, jaundice, impotence, throat and respiratory irritations, and severe headaches. PCB exposure has caused cancerous tumors in laboratory animals.

In the early 1970s, Monsanto Company, the principal manufacturer of PCBs in the United States, voluntarily restricted the use of PCBs to totally enclosed uses such as transformers and capacitors. In 1977 Monsanto voluntarily terminated production of PCBs because of widespread concern about the environmental impact of these compounds. Unfortunately, foreign firms did not restrict their production or use of PCBs.

The Toxic Substances Control Act was passed in October, 1976 in response to concern over widespread contamination of United States surface waters, such as the Hudson River. The Act was designed to help prevent other situations such as that with PCBs, where a seemingly benign, useful chemical compound becomes an environmental hazard. PCBs are the only chemical compound named specifically in the Act. The Act regulates the manufacture, use, disposal, and transportation of PCBs. In February, 1978 EPA promulgated the final implementing regulations on the marking and disposal of PCBs. EPA regulations issued May 31, 1979 established bans or limits on manufacturing, processing, marking, and handling of PCBs. The regulations on disposal were expanded at that time.

The next speaker was Jim Willmann of the Seattle EPA Office. He described the procedures that were followed to clean up 265 gallons of PCBs that were spilled when a 75KVA transformer fell into the Duwamish River in 1974. The transformer was owned by the United States government and both EPA and the Corps of Engineers participated in the cleanup operation which took two years and cost 3/4 million dollars to remove approximately 90 to 95% of the spilled PCBs from the river. Recent (September 28, 1979) EPA regulations implementing the Clean Water Act require that spills of 10 or more pounds of PCBs into any United States surface waters be reported to federal authorities and cleaned up immediately by the perpetrator. Penalties of up to \$250,000 can be imposed on the perpetrator, depending on the circumstances.

Mike Williams of the FDA was the next speaker. He described the recent well-publicized case of PCB contamination of animal feed, describing the process by which the FDA traced the source of contamination from a chicken farm in Franklin, Idaho back to a meat packing plant in Billings, Montana. It was a very time-consuming and expensive operation just to determine the source of the PCB contamination as there were many possible sources on or near the chicken farm such as: an oiled county road, nine water wells, a public dump, a plastic manufacturing plant, and a transformer reconditioning site. Samples were taken of chicken feed and one batch of feed originating at the Pierce Packing Company in Billings, Montana showed from 15 to 2,000 ppm of PCBs. The source of contamination at the packing company was found to be a leaking 200 gallon transformer in storage. Contaminated products from that packing plant were traced to 15 states and three foreign countries. Millions of dollars worth of animals, poultry, eggs, and animal feed had to be destroyed. Some contaminated eggs were consumed before the problem was identified, but Mr. Williams emphasized that these did not have high enough levels of PCBs to constitute an immediate health hazard.

Jim Sanders of the Benton County PUD spoke next, expressing the viewpoint of the public utility districts on the EPA regulations for PCBs. He had a number of specific questions about the regulations that were answered by Hal Snyder of the Washington, D.C. EPA Office.

After the lunch break, Hal Snyder reviewed the PCB regulations in detail. He also discussed the lack of government approved incinerators for disposal of PCB transformers, all liquids containing more than 500 ppm of PCBs, and, after January 1, 1980, large capacitors (over three pounds in weight). The development of these extremely high efficiency incinerators by private companies has been very slow due to several factors including opposition from local communities and governments to the presence of these experimental operations in their areas.

Mr. Snyder emphasized that the present regulations authorize the use of transformers containing PCBs as long as they do not leak, however, servicing of these transformers is authorized until July 1, 1984 only. EPA will consider the necessity of extending the authorized period prior to the 1984 termination date.

The next speaker was Rogers Fuentes of the Seattle EPA Office. He discussed the disposal regulations for PCBs and answered some questions from the audience on those regulations.

Charles Rice of the Seattle EPA Office spoke next, describing the procedures that are followed when EPA inspects a utility's PCB storage facilities. An EPA inspector might check for proper labeling, correct storage facilities, leaks, general housekeeping practices, and good record-keeping. The inspector may take samples of liquids in storage to test the PCB content. The owner may ask for duplicate samples.

The seminar concluded with a lengthy question and answer session led by Hal Snyder. Representatives from public and private utilities in Region 10 had many questions about the meaning and application of the regulations.

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